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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/655,340

09/04/2003

Grigori Lishanski

423.008

6105

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7590

08/30/2006

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EXAMINER

GILLAN, RYAN P

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/655,340 | | LISHANSKI ET AL. | |
| | Examiner | | Art Unit | |
| | Ryan P. Gillan | | 3746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 recites the limitation "the gasket" in lines 2 of claim 6. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed that the applicant was referring instead to the diaphragm mentioned previously in the claim.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-5, 7-10 and 16 rejected under 35 U.S.C. 102(a) as being anticipated by Lishanski et al. (6,604,920). Lishanski et al. teach a vibratory pump comprising: a housing (1), a vibration generating mechanism (2) disposed within the housing; a pumping chamber (clearly seen in figure 1 containing all the pumping elements) disposed within the housing adjacent the vibration generating mechanism (clearly seen in figure 1), the pumping chamber including at least one fluid inlet (15) and a fluid outlet (13) each extending through the housing; and a rod (6) operably connected to the vibration generating mechanism at one end and positioned within the pumping chamber at the opposite end (clearly seen in

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figure 1), the opposite end selectively engageable with the fluid outlet during operation of the vibration generating mechanism (col. 3 lines 18-30); the fluid outlet includes an outlet chamber (12) having an inner end positioned within the housing and including a central opening (clearly seen in figure 1), and an outer end (8a) extending outwardly from the housing; wherein the central opening has a conical surface (clearly seen integral with chamber 12); wherein the rod includes a plate (9) opposite the vibration generating mechanism that is matable and engageable with the central opening (clearly seen in figure 1); wherein the plate is formed of a resilient material (col. 2 lines 36-41, inherently, any material has at least some degree of resiliency); wherein the plate is positioned within the outlet end (plunger 10 is an integral with the plate, and thus part of the plate, and is clearly seen in figure 1); wherein the plate includes a central portion (within the limits of structure 10) having a diameter less than the diameter of the central opening and an outer portion (outside of the limits of structure 10) having a diameter greater than the diameter of the central opening; wherein the outer portion includes a sealing member (16) that is sealingly engageable with the inner end of the outlet chamber; wherein the vibration generating mechanism includes a switch extending through the housing (col. 3 line 64 - col. 4 line 2, although a switch extending through the housing is not specifically called out it is inherently disclosed in that the power source and motor are completely enclosed in the housing as seen in figure 1 and therefore the switching off of the power would require a switch extending through the housing).

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lishanski et al. (6,604,920) in view of Lishanski et al. (6,428,289). Lishanski (6,604,920) teaches all of the claim limitations as applied to claim 2, but fails to teach the inner end including a resilient diaphragm positioned over the central opening, the diaphragm (or gasket) including a central aperture or opening.

5. Lishanski (6,428,289) teaches an inner end including a resilient diaphragm (250) positioned over the central opening (clearly seen in figure 1), the diaphragm (or gasket) including a central aperture or opening (260). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lishanski (6,604,920) to incorporate the diaphragm assembly as disclosed in Lishanski (6,428,289) as a means of structurally simplifying the active pumping mechanism and creating more efficient flow from the inlet to the outlet, thus creating a more cost effective pump.

6. Claims 11-15, 17 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Lishanski et al. (6,604,920) in view Pilolla et al. (4,938,384). Lishanski et al. teach all of the claim limitations as applied to claim 1, but fail to teach at least one inlet tube that extends outwardly from the housing; wherein the outlet tube is formed from a generally resilient material; wherein the one fluid inlet

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includes at least one fluid opening in the pump chamber aligned with the at least one inlet tube; wherein the housing includes an engagement member disposed on the housing that is engageable with a fluid-holding container; and wherein the engagement member is threaded.

7. Pilolla et al. teach at least one inlet tube (64) that extends outwardly from the housing (66); wherein the inlet tube is formed from a generally resilient material (any material is inherently resilient to at least some degree); wherein the one fluid inlet includes at least one fluid opening (clearly seen connected to tube 64) in the pump chamber aligned with the at least one inlet tube (clearly seen in figure 1); wherein the housing includes an engagement member (58) disposed on the housing that is engageable with a fluid-holding container (12); and wherein the engagement member is threaded (clearly seen in figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the inlet of Lishanski to accommodate the fluid-holding container as taught by Pilolla et al. as a means of supplying fluid to the pump in an easily regulated and measured amount (col. 2 lines 1-15).

8. Claims 18 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Lishanski et al. (6,604,920) and Pilolla et al. (4,938,384) in view of Lishanski (6,428,289). The combination of Lishanski et al. (6,604,920) and Pilolla et al. teach all of the claim limitations as applied to claim 17, but fail to teach the inner end including a resilient diaphragm positioned over the central opening, the diaphragm (or gasket) including a central aperture or opening.

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9. Lishanski (6,428,289) teaches an inner end including a resilient diaphragm (250) positioned over the central opening (clearly seen in figure 1), the diaphragm (or gasket) including a central aperture or opening (260). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lishanski (6,604,920) to incorporate the diaphragm assembly as disclosed in Lishanski (6,428,289) as a means of structurally simplifying the active pumping mechanism and creating more efficient flow from the inlet to the outlet, thus creating a more cost effective pump.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Gillan whose telephone number is 571-272-8381. The examiner can normally be reached on 8:30 am - 5:00 pm; Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RPG

ANTHONY D. STASHICK
PRIMARY EXAMINER